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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,523	10/19/2001	Geetha Pannala	1011-59279	9975
24197	7590	07/21/2005	EXAMINER	
KLARQUIST SPARKMAN, LLP 121 SW SALMON STREET SUITE 1600 PORTLAND, OR 97204			TAT, BINH C	
			ART UNIT	PAPER NUMBER
			2825	

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/045,523

Applicant(s)

PANNALA ET AL.

Examiner

Binh C. Tat

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-53 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 19 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

DETAILED ACTION

1. This office action is in response to application 10/045523 filed on 10/19/01.

Claims 1-53 remain pending in the application.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishikawa et al.

(US Patent 6457165).

3. As to claims 1 (method), 3, 5, 9, 14(machine readable media), 18, 22, 27 (apparatus), 31, 35, Ishikawa et al. teach a computer-implemented method, comprising: inputting a netlist (see see fig 4 and 9-13); generating symbols and connections formed according to the netlist and at least in part according to connectivity strength between at least a first symbol and a second symbol, the first symbol and the second symbol having at least one connection between the first symbol and the second symbol, the connectivity strength corresponding to a quantification of the at least one connection between the first symbol and the second symbol; and (see fig 9-13 col 8 lines 9 to col 12 lines 15 and col 2 lines 34-39); and generating a wiring harness diagram that comprises to the symbols and the connections (see fig 9-13 col 8 lines 56 to col 13 lines 64 and col 2 lines 40-57).

Art Unit: 2825

4. As to claims 2 (method), 15(machine readable media), and 28 (apparatus) Ishikawa et al. teach in which generating the wiring harness diagram comprises: sorting the netlist at least in part according to the connectivity strength (see col 2 lines 51-57).

5. As to claims 4 (method), 17(machine readable media), and 30 (apparatus) Ishikawa et al. teach further comprising: sequencing symbol placement for the wiring harness diagram such that symbols with predetermined pin positions are placed in the wiring harness diagram with higher priority than symbols for which the side of the symbol for placing a pin may be selected (see fig 9-13 col 8 lines 56 to col 13 lines 64).

6. As to claims 6 (method), 19(machine readable media), and 32(apparatus) Ishikawa et al. teach further comprising: selecting a side of a first symbol on which to position a pin to increase the directness of connectivity between the first symbol and a second symbol (see fig 9-13).

7. As to claims 7 (method), 20(machine readable media), and 33(apparatus) Ishikawa et al. teach n which generating a wiring diagram according to the layout further comprises: selecting sides of the symbols on which to position pins according to a selected layout dimension, and arranging the pins on the selected sides to increase the directness of connections between the symbols (see fig 9-13).

8. As to claims 8 (method), 21(machine readable media), and 34(apparatus) Ishikawa et al. teach sequencing symbol placement for the wiring harness diagram such that symbols with predetermined pin positions are placed in the layout with higher priority than symbols for which the side of the symbol for placing a pin may be selected (see fig 9-13 col 8 lines 56 to col 13 lines 64).

Art Unit: 2825

9. As to claims 10 (method), 23(machine readable media), and 36(apparatus) Ishikawa et al. teach in which selecting the side of the first symbol further comprises: selecting the side according to a selected layout dimension and a position of the second symbol (see fig 9-13 col 8 lines 56 to col 13 lines 64).

10. As to claims 11 (method), 24(machine readable media), and 37 (apparatus) Ishikawa et al. teach further comprising: sequencing symbol placement for the wiring harness diagram such that symbols with predefined pin positions are placed in the layout with higher priority than symbols for which the side of the symbol for placing a pin may be selected (see fig 9-13 col 8 lines 56 to col 13 lines 64 and background).

11. As to claims 12 (method), 25(machine readable media), and 38 (apparatus) Ishikawa et al. teach A computer-implemented method, comprising: when at least one first pair of symbols of a netlist has been placed in a wiring harness layout, selecting a next pair of symbols to place in the layout comprising at least one symbol of the first pair (see fig 9-13 col 8 lines 51-55 and col 2 lines 34-39); and when there is at least one predefined symbol in the netlist, selecting as the next pair of symbols a pair of symbols having the Largest number of connection and comprising a predefined symbol (see fig 9-13 col 8 lines 56 to col 13 lines 64 and background).

12. As to claims 13 (method), 26(machine readable media), and 39 (apparatus) Ishikawa et al. teach further comprising: selecting for the placement of pins a side of one symbol of the next pair of symbols (see fig 9-13 col 8 lines 51-55 and col 2 lines 34-39); and arranging the pins along the side to increase the directness of connection between the next pair of symbols (see fig 9-13 col 8 lines 51-55 and col 2 lines 34-39).

Art Unit: 2825

13. As to claim 16 (machine readable media), and 29 (apparatus), Ishikawa et al. teach in which generating the symbols further comprises: positioning a pin on a side of the first symbol, the side selected according to (a) a connection between the first symbol and the second symbol (see fig 9-13 col 8 lines 56 to col13 lines 64 and background).

14. As to claims 40 Ishikawa et al. teach a carrier wave, comprising: signals defining component symbols and connections generated according to a netlist and a selected wiring harness layout dimension, and at least in part according to a connectivity strength between a first symbol and a second symbol the symbols and connections defining a wiring harness diagram along the layout dimension (see fig 91-13 col 8 lines 56 to col13 lines 64 and background).

15. As to claims 41 Ishikawa et al. teach A carrier wave, comprising: signals defining a first and second component symbols, the component symbols comprising pins, the pins positioned on sides of the symbols selected to increase the directness of connectivity between the first symbol and the second symbol the connectivity corresponding to the quantization of connections between the first symbol and the second symbol. (see fig 9-13 col 8 lines 56 to col13 lines 64 and background).

16. As to claims 42 Ishikawa et al. teach wherein the wiring harness diagram corresponds to a wiring harness, the wiring harness comprising at least one bundle of signal-carrying wires (see fig 9-13 col 8 lines 51-55 and col 2 lines 34-39).

17. As to claims 43 Ishikawa et al. teach wherein the wiring harness diagram is generated along a selected wiring harness layout dimension (see fig 9-13 col 8 lines 51-55 and col 2 lines 34-39).

Art Unit: 2825

18. As to claims 44 Ishikawa et al. teach wherein the signal-carrying wires carry electrical signals (see fig 9-13 col 8 lines 51-55 and col 2 lines 34-39).

19. As to claims 45 Ishikawa et al. teach wherein the signal-carrying wires carry optical signals (see fig 9-13 col 8 lines 51-55 and col 2 lines 34-39).

20. As to claims 46 Ishikawa et al. teach wherein the wiring harness diagram represents a wiring harness that establishes connectivity between at least two components (see fig 9-13 col 8 lines 56 to col 13 lines 64 and background).

21. As to claims 47 Ishikawa et al. teach wherein at least one component is an electrical component (see fig 9-13 col 8 lines 56 to col 13 lines 64 and background).

22. As to claims 48 Ishikawa et al. teach wherein at least one component is an optical Component (see fig 9-13 col 8 lines 56 to col 13 lines 64 and background).

23. As to claims 49 Ishikawa et al. teach wherein the act of generating a wiring harness diagram comprises resizing at least one symbol (see fig 9-13 col 8 lines 56 to col 13 lines 64 and background).

24. As to claims 50 Ishikawa et al. teach wherein the act of generating a wiring harness diagram comprises repositioning at least one symbol (see fig 9-13 col 8 lines 56 to col 13 lines 64 and background).

25. As to claims 51 Ishikawa et al. teach wherein the wiring harness diagram further comprises pins, wherein the act of generating the wiring harness diagram comprises arranging the pins to increase directness of connections between at least two symbols, and wherein at least one symbol is resized and at least one symbol is repositioned (see fig 9-13 col 8 lines 56 to col 13 lines 64 and background).

Art Unit: 2825

26. As to claims 52 Ishikawa et al. teach wherein arranging the pins comprises resizing at least one symbol (see fig 9-13 col 8 lines 56 to col 13 lines 64 and background).

27. As to claims 53 Ishikawa et al. teach wherein arranging the pins comprises repositioning at least one symbol (see fig 9-13 col 8 lines 56 to col 13 lines 64 and background).

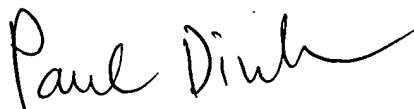
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh C. Tat whose telephone number is (703) 305-4855. The examiner can normally be reached on 7:30 - 4:00 (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew Smith can be reached on (703) 308-1323. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit 2825  
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Application/Control Number: 10/045,523

Page 8

Art Unit: 2825